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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,802	02/17/2004	Stanislaw Kielbowicz	015258-062800US	1519

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EXAMINER

AWAI, ALEXANDRA F

ART UNIT	PAPER NUMBER
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3663

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/780,802	KIELBOWICZ, STANISLAW	
	Examiner	Art Unit	
	Alexandra Awai	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/24/2006 have been fully considered but they are not in every respect persuasive. Those rejections that have been overcome are omitted from the present Office action and are considered withdrawn. Claims 1 and 4-10 are currently amended, and claim 11 is new. Claims 1-11 have been examined.

With regard to Applicant's contention that Kielbowicz teaches away from the postulated modification, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). Additionally, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "Teaching away" is entirely different from "teaching something else," and at no point does Kielbowicz teach that a particular configuration is sufficiently undesirable or incompatible to warrant the conclusion that they "teach away". Kielbowicz simply makes no mention of embodiments other than the annular configuration. The differences between the intended purpose of the screen taught by Kielbowicz and that of the claimed invention do not preclude the application of teachings gleaned from Kielbowicz.

As to the assertion that Kielbowicz teach a screen that is only one sieve pocket in height, while the claimed invention has a lattice or matrix of screen pockets, it is not clear what distinction Applicant is pointing out. The claimed lattice or matrix of screen pockets is also only

Art Unit: 3663

one sieve pocket in height. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the intermediate walls allow fuel flow between rows of suction pockets and that the cassette units can be lined up in two directions) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claimed intermediate walls are "formed as double walls" (claim 1) and "clamped against one another by means of connection elements" (claim 7). The spacing between the intermediate walls is "determined in part by spacer elements" (claim 8). Claim 9 is inclusive of an embodiment wherein the intermediate wall is not perforated. Furthermore, as can be seen from Fig. 2 of Kielbowicz, every side of the suction pockets is perforated. The prior art made of record includes examples wherein all sides of suction pocket-type structures are perforated (e.g., 5,867,551), and providing additional perforations is motivated by the same advantages of greater sieve area taught by Kielbowicz (col. 3, lines 29-43). Claim 2 recites that the cassette units can be placed in a row, just as the cassettes of Kielbowicz.

With regard to Regulatory Guide 1.82, it is not impermissible hindsight that allows one to state that the present invention meets the requirements set forth in the guide. Additionally, whether or not the claimed invention meets those requirements is completely irrelevant. The important issue is what the teachings provided in Regulatory Guide 1.82 suggest or motivate as it relates to the *prior art*. An skilled artisan in the nuclear industry would be aware of the guidelines set forth in the reference, and would be motivated to follow them for the sake of improving plant performance and being in accordance with industry regulations. However,

Art Unit: 3663

Examiner acknowledges that if the Kielbowicz were flattened out, it would not be useful for its original intended purpose.

Applicant's comments regarding Kielbowicz on page 6 of the Remarks mischaracterize the state of the art. No explicit teaching regarding the modularity of cassette units is required for a skilled artisan in the nuclear art. Assembling modular units such as the claimed cassettes is within the purview of one of ordinary skill, and so the teachings regarding the use of annular cassettes in Kielbowicz are sufficient to demonstrate that the use of modular units has previously been contemplated in the art. Applicant is not the inventor of the concept of using smaller, modular units to construct a larger, customized unit. In fact, dividing a larger rectangular screen into smaller rectangular parts can be considered as nothing more than making the screen separable. *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961). Additionally, using a plurality of screens to cover the required space is nothing more than duplication of parts. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 apparently sets forth an embodiment that is not representative of the disclosed invention. The spacers of the instant invention are not between the spaced apart walls and intermediate walls, rather the spacers (24, 24.1 and 24.2) are *within* the double-walled structures.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Regulatory Guide 1.82, and further in view of Kielbowicz.

Regulatory Guide 1.82 (RG-1.82) teaches a protective screen for screening off a suction space and suction duct connected to it (Design #2, 1.82-A-14). As is conventional in the art, it has at least one screen wall element having a suction side and an outflow side (also note specification, p. 1). RG-1.82 also provides numerous relevant teachings regarding the functionality of protective screens. For example, included in the Features Needed to Minimize the Potential Loss of NPSH (net positive suction head) are: 1.1.1.6) that sump screens should be capable of withstanding loads imposed by accumulation of debris and 1.1.1.11) that the sump screen design should be chosen to avoid loss of NPSH caused by debris blockage. However, RG-1.82 does not teach the relatively advanced cassette structure set forth in the claims.

Kielbowicz discloses a suction sieve or screen for use in the emergency cooling system of a nuclear power plant made up of modular cassette elements. Each cassette unit has perforated, spaced apart wall sections, along with wall segments, form sieve pockets defined by lateral walls and discharge, or outflow gaps. The side of the elements having outflow gaps is the outflow side, while the other side is necessarily the suction side (see Abstract). Wall segments (13) are bent in U-shaped configurations and formed of perforated sheet metal (col. 2, lines 41-42). Wall sections

Art Unit: 3663

11 and 12 are spaced apart by spacers (21, 22) and Fig. 4 shows that the walls themselves (e.g. 12) function as spacer elements for the U-shaped perforated walls. Although Kielbowicz defines a single cassette as having only two end wall sections (11 and 12), one may interpret an aspect of the disclosed invention as a compound cassette unit comprised of a plurality of cassette elements, and therefore a plurality of end wall section pairs. These compound cassette units have double walls formed by abutting end wall sections, the wall sections not on the periphery of the compound cassette unit being intermediate walls. The compound cassette units may also be placed in a row to form a further compounded and more extensive unit. As best seen in Fig. 2, the cassettes or compound cassettes are clamped against each other by connection elements (10) and in the region of the suction pockets, the end wall sections are perforated. The foregoing discussion demonstrates that Kielbowicz cures every deficiency of RG-1.82 with regard to claims 1-4, 6-9 and 11.

While the screen disclosed by Kielbowicz has an annular body, the teachings provided by Kielbowicz regarding the filtering configuration and modularity may clearly be applied to the flat or angular sump screen as disclosed in RG-1.82. It would have been obvious to one skilled in the art at the time of invention to modify the conventional flat screen of RG-1.82 to have the advantageous sieve pocket structure disclosed in Kielbowicz. The advantages of this structure include that it provides a particularly favorable ratio between the volume of the sieve and its effective sieve surface area (col. 3, lines 29+). The teachings of RG-1.82 stated above essentially call upon the skilled artisan to employ means of reduce loss of net positive suction head. The teachings of Kielbowicz provide such a means and are closely related in problem solving area and technological field. It would require only conventional metalworking skills to accomplish

Art Unit: 3663

this modification, and doing so would be no more than the advantageous application of expedients known in the art.

The depth of the sieve pockets disclosed by Kielbowicz is not given a specific value, and thus there is no explicit teaching with regard to claims 5 and 10. However, Kielbowicz states that the favorable ratio between the volume of the sieve and its effective sieve surface is due to the fact that water can flow through outwardly opening sieve pockets, each of which forms a partial sieving volume. In other words, the more convoluted the sieve structure – i.e., the deeper the pockets – the more accessible area there is for water to escape, the lower the flow rate of the water through any given aperture and the more constant the pressure regardless of debris accumulation (col. 3, lines 29-43). The claimed pocket depths are therefore result-effective variables that may be optimized within prior art conditions or through routine experimentations. See MPEP § 2144.05(II)(A). It would have been obvious to one skilled in the art at the time of invention to develop pockets having depths greater than 0.2 m for the screen taught by RG-1.82 and Kielbowicz in order to prevent undesirable pressure changes, a motivation disclosed by Kielbowicz as stated above. Examiner notes that Applicant has not presented an argument directly related to these features in the Remarks dated 10/24/2006.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandra Awai whose telephone number is (571) 272-3079. The examiner can normally be reached on 9:30-6:00 Monday-Friday.

Art Unit: 3663

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

December 3, 2006


JACK KEITH
SUPERVISORY PATENT EXAMINER